

REMARKS

Claims 1-27 are all the claims pending in the application.

Claim 1 is amended herein. As amended, X₁, X₃, X₅, X₇ and X₉ each independently represent -CR₂₁=CR₂₂-. Also, X₂, X₄, X₆, X₈ and X₁₀ to X₁₃ each independently represent -CR₃₀-. In addition, at least one of R₃ to R₃₀ is an alkoxyphenyl group,

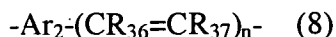
Claims 1, 2, 4 and 6-27 are rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,169,163 B1 to Woo et al for reasons of record.

Claims 1-27 are rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,361,887 B1 to Shi et al for reasons of record.

Claims 1-27 are rejected under 35 U.S.C. § 103(a) as obvious over EP 1 043 382 A2 to Noguchi et al for reasons of record.

Applicants' Response

The present invention is directed to a polymeric fluorescent substance that exhibits fluorescence in the solid state. This polymeric substance comprises repeating units of formula (1) and formula (8).



Ar₁ is a divalent group represented by any one of the formulae (2) to (7). *See* Claim 1. Each of formulae (2) to (7) have at least one alkoxyphenyl substitution.

Applicants respectfully submit that the cited prior art fails to teach the presently claimed repeating unit having alkoxyphenyl substitution.

A. § 103 rejection based on Woo

Applicants submit that the main chain structure of Woo's polymer is completely different from that of the present claim. Unlike the present invention, Woo is directed to fluorene-containing polymers. Further, Woo does not disclose the specific divalent group of the present invention having a specific condensed aromatic ring structure (*i.e.*, an aromatic-aromatic condensed ring group). *See* formula (1) of Claim 1.

In the reasons for rejection, the Examiner relies on monomer M-17 (and polymer P-11) of Woo. Applicants respectfully point out that, unlike the present invention, this monomer/polymer is not alkoxyphenyl substituted.

Applicants additionally submit that one of ordinary skill in the art would not have been motivated to modify Woo's P-11 by substituting an alkoxyphenyl group. Applicants assert that there is a lack of suggestion to modify Woo's polymer in the manner suggested by the Examiner.

Furthermore, any allegation that one of ordinary skill in the art would have been motivated to substitute an alkoxyphenyl group would have to be based on an improper "obvious to try" rationale. Applicants submit that Woo gives no indications regarding which substitutions would have been critical for polymer P-11.

Accordingly, Applicants respectfully request that the § 103 rejection based on Woo be reconsidered and withdrawn.

B. § 103 rejection based on Shi

Applicants submit that Shi fails to teach the substitution of a alkoxyphenyl group in of the compounds taught therein.

Applicants additionally submit that one of ordinary skill in the art would not have been motivated to modify the repeating units taught therein by substituting an alkoxyphenyl group. Applicants assert that there is a lack of suggestion in Shi to modify the polymers in this manner.

Accordingly, Applicants respectfully request that the § 103 rejection based on Shi be reconsidered and withdrawn.

C. § 103 rejection based on Noguchi

Applicants submit that Noguchi also fails to teach the substitution of a alkoxyphenyl group in the compounds taught therein.

Applicants additionally submit that one of ordinary skill in the art would not have been motivated to modify the repeating units taught therein by substituting an alkoxyphenyl group. Applicants assert that there is a lack of suggestion in Noguchi to modify the polymers in this manner.

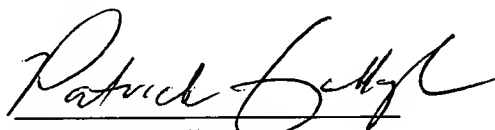
Accordingly, Applicants respectfully request that the § 103 rejection based on Noguchi be reconsidered and withdrawn.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
U.S. Application No. 09/995,814

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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